

## SEQUENCE LISTING

&lt;110&gt; Nordlund, Henri Rainer et al.

&lt;120&gt; Avidin mutants

&lt;130&gt; BP110588

&lt;160&gt; 29

&lt;170&gt; PatentIn version 3.1

&lt;210&gt; 1

&lt;211&gt; 152

&lt;212&gt; PRT

&lt;213&gt; Gallus gallus

&lt;400&gt; 1

Met Val His Ala Thr Ser Pro Leu Leu Leu Leu Leu Leu Ser Leu  
 1 5 10 15

Ala Leu Val Ala Pro Gly Leu Ser Ala Arg Lys Cys Ser Leu Thr Gly  
 20 25 30

Lys Trp Thr Asn Asp Leu Gly Ser Asn Met Thr Ile Gly Ala Val Asn  
 35 40 45

Ser Arg Gly Glu Phe Thr Gly Thr Tyr Ile Thr Ala Val Thr Ala Thr  
 50 55 60

Ser Asn Glu Ile Lys Glu Ser Pro Leu His Gly Thr Gln Asn Thr Ile  
 65 70 75 80

Asn Lys Arg Thr Gln Pro Thr Phe Gly Phe Thr Val Asn Trp Lys Phe  
 85 90 95

Ser Glu Ser Thr Thr Val Phe Thr Gly Gln Cys Phe Ile Asp Arg Asn  
 100 105 110

Gly Lys Glu Val Leu Lys Thr Met Trp Leu Leu Arg Ser Ser Val Asn  
 115 120 125

Asp Ile Gly Asp Asp Trp Lys Ala Thr Arg Val Gly Ile Asn Ile Phe  
 130 135 140

Thr Arg Leu Arg Thr Gln Lys Glu  
 145 150

&lt;210&gt; 2

&lt;211&gt; 298

&lt;212&gt; PRT

&lt;213&gt; Gallus gallus

&lt;400&gt; 2

Met Val His Ala Thr Ser Pro Leu Leu Leu Leu Leu Leu Ser Leu  
 1 5 10 15

Ala Leu Val Ala Pro Gly Leu Ser Ala Arg Lys Arg Thr Gln Pro Thr  
 20 25 30

Phe Gly Phe Thr Val Asn Trp Lys Phe Ser Glu Ser Thr Thr Val Phe  
 35 40 45

Thr Gly Gln Cys Phe Ile Asp Arg Asn Gly Lys Glu Val Leu Lys Thr  
 50 55 60

Met Trp Leu Leu Arg Ser Ser Val Asn Asp Ile Gly Asp Asp Trp Lys  
 65 70 75 80

Ala Thr Arg Val Gly Ile Asn Ile Phe Thr Arg Leu Arg Thr Gln Lys  
 85 90 95

Glu Gly Gly Ser Gly Gly Ser Ala Arg Lys Cys Ser Leu Thr Gly Lys  
 100 105 110

Trp Thr Asn Asp Leu Gly Ser Asn Met Thr Ile Gly Ala Val Asn Ser  
 115 120 125

Arg Gly Glu Phe Thr Gly Thr Tyr Ile Thr Ala Val Thr Ala Thr Ser  
 130 135 140

Asn Glu Ile Lys Glu Ser Pro Leu His Gly Thr Gln Asn Thr Ile Asn  
 145 150 155 160

Lys Ser Gly Gly Ser Thr Thr Val Phe Thr Gly Gln Cys Phe Ile Asp  
 165 170 175

Arg Asn Gly Lys Glu Val Leu Lys Thr Met Trp Leu Leu Arg Ser Ser  
 180 185 190

Val Asn Asp Ile Gly Asp Asp Trp Lys Ala Thr Arg Val Gly Ile Asn  
 195 200 205

Ile Phe Thr Arg Leu Arg Thr Gln Lys Glu Gly Gly Ser Gly Gly Ser  
 210 215 220

Ala Arg Lys Cys Ser Leu Thr Gly Lys Trp Thr Asn Asp Leu Gly Ser  
 225 230 235 240

Asn Met Thr Ile Gly Ala Val Asn Ser Arg Gly Glu Phe Thr Gly Thr  
 245 250 255

Tyr Ile Thr Ala Val Thr Ala Thr Ser Asn Glu Ile Lys Glu Ser Pro  
 260 265 270

Leu His Gly Thr Gln Asn Thr Ile Asn Lys Arg Thr Gln Pro Thr Phe  
 275 280 285

Gly Phe Thr Val Asn Trp Lys Phe Ser Glu  
 290 295

<210> 3  
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 <223> linker

<400> 3

Gly Gly Ser Gly Gly Ser  
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31

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<400> 5  
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20

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36

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31

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aagtccacca ctgtcttcac g

21

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agacaaagct tcactctgaa aacttccaat tg

32

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38

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29

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<223> primer

<400> 14  
agggtcggct cgaacatctt

20

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<223> primer

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cacaggcacc cacatcacag ccg

23

<210> 17  
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<212> DNA  
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<223> primer

<400> 17  
cggctgtgat gtgggtgcct gtg

23

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<223> primer

<400> 18  
ggcggatcta ccactgtc

18

<210> 19

<211> 18  
<212> DNA  
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<223> primer

<400> 19  
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18

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<212> DNA  
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<400> 20  
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29

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<212> DNA  
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<400> 22  
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46

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<223> primer

<400> 23  
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20

<210> 24  
<211> 581  
<212> PRT  
<213> Gallus gallus

<400> 24

Met Val His Ala Thr Ser Pro Leu Leu Leu Leu Leu Leu Ser Leu  
1 5 10 15

Ala Leu Val Ala Pro Gly Leu Ser Ala Arg Lys Arg Thr Gln Pro Thr

20	25	30
Phe Gly Phe Thr Val Asn Trp Lys Phe Ser Glu Ser Thr Thr Val Phe 35 40 45		
Thr Gly Gln Cys Phe Ile Asp Arg Asn Gly Lys Glu Val Leu Lys Thr 50 55 60		
Met Trp Leu Leu Arg Ser Ser Val Asn Asp Ile Gly Asp Asp Trp Lys 65 70 75 80		
Ala Thr Arg Val Gly Ile Asn Ile Phe Thr Arg Leu Arg Thr Gln Lys 85 90 95		
Glu Gly Gly Ser Gly Gly Ser Ala Arg Lys Cys Ser Leu Thr Gly Lys 100 105 110		
Trp Thr Asn Asp Leu Gly Ser Asn Met Thr Ile Gly Ala Val Asn Ser 115 120 125		
Arg Gly Glu Phe Thr Gly Thr Tyr Ile Thr Ala Val Thr Ala Thr Ser 130 135 140		
Asn Glu Ile Lys Glu Ser Pro Leu His Gly Thr Gln Asn Thr Ile Asn 145 150 155 160		
Lys Ser Gly Gly Ser Thr Thr Val Phe Thr Gly Gln Cys Phe Ile Asp 165 170 175		
Arg Asn Gly Lys Glu Val Leu Lys Thr Met Trp Leu Leu Arg Ser Ser 180 185 190		
Val Asn Asp Ile Gly Asp Asp Trp Lys Ala Thr Arg Val Gly Ile Asn 195 200 205		
Ile Phe Thr Arg Leu Arg Thr Gln Lys Glu Gly Gly Ser Gly Gly Ser 210 215 220		
Ala Arg Lys Cys Ser Leu Thr Gly Lys Trp Thr Asn Asp Leu Gly Ser 225 230 235 240		
Asn Met Thr Ile Gly Ala Val Asn Ser Arg Gly Glu Phe Thr Gly Thr 245 250 255		
Tyr Ile Thr Ala Val Thr Ala Thr Ser Asn Glu Ile Lys Glu Ser Pro 260 265 270		

Leu His Gly Thr Gln Asn Thr Ile Asn Lys Arg Thr Gln Pro Thr Phe  
 275 280 285

Gly Phe Thr Val Asn Trp Lys Phe Ser Glu Gly Gly Ser Gly Ser Gly  
 290 295 300

Ser Gly Ser Gly Ser Gly Arg Thr Gln Pro Thr Phe Gly Phe Thr Val  
 305 310 315 320

Asn Trp Lys Phe Ser Glu Ser Thr Thr Val Phe Thr Gly Gln Cys Phe  
 325 330 335

Ile Asp Arg Asn Gly Lys Glu Val Leu Lys Thr Met Trp Leu Leu Arg  
 340 345 350

Ser Ser Val Asn Asp Ile Gly Asp Asp Trp Lys Ala Thr Arg Val Gly  
 355 360 365

Ile Asn Ile Phe Thr Arg Leu Arg Thr Gln Lys Glu Gly Gly Ser Gly  
 370 375 380

Gly Ser Ala Arg Lys Cys Ser Leu Thr Gly Lys Trp Thr Asn Asp Leu  
 385 390 395 400

Gly Ser Asn Met Thr Ile Gly Ala Val Asn Ser Arg Gly Glu Phe Thr  
 405 410 415

Gly Thr Tyr Ile Thr Ala Val Thr Ala Thr Ser Asn Glu Ile Lys Glu  
 420 425 430

Ser Pro Leu His Gly Thr Gln Asn Thr Ile Asn Lys Ser Gly Gly Ser  
 435 440 445

Thr Thr Val Phe Thr Gly Gln Cys Phe Ile Asp Arg Asn Gly Lys Glu  
 450 455 460

Val Leu Lys Thr Met Trp Leu Leu Arg Ser Ser Val Asn Asp Ile Gly  
 465 470 475 480

Asp Asp Trp Lys Ala Thr Arg Val Gly Ile Asn Ile Phe Thr Arg Leu  
 485 490 495

Arg Thr Gln Lys Glu Gly Gly Ser Gly Gly Ser Ala Arg Lys Cys Ser  
 500 505 510

Leu Thr Gly Lys Trp Thr Asn Asp Leu Gly Ser Asn Met Thr Ile Gly  
 515 520 525

Ala Val Asn Ser Arg Gly Glu Phe Thr Gly Thr Tyr Ile Thr Ala Val  
 530 535 540

Thr Ala Thr Ser Asn Glu Ile Lys Glu Ser Pro Leu His Gly Thr Gln  
 545 550 555 560

Asn Thr Ile Asn Lys Arg Thr Gln Pro Thr Phe Gly Phe Thr Val Asn  
 565 570 575

Trp Lys Phe Ser Glu  
 580

<210> 25  
 <211> 1746  
 <212> DNA  
 <213> Gallus gallus  
 <221> DNA  
 <223> DNA sequence which codes for scAvd of SEQ ID NO 24

<400> 25  
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 atgaccatcg gggctgtgaa cagcagaggt gaattcacag gcacctacat cacagccgta 420  
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 gaggtcctga agaccatgtg gctgctgctg tcaagtgtta atgacattgg tgatgactgg 600  
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 tccggagggt ccgccagaaa gtgctcgtg actgggaaat ggaccaacga tctgggctcc 720  
 aacatgacca tcggggctgt gaacagcaga ggtgaattca caggcaccta catcacagcc 780  
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 aacaagagga ccagcccac ctttggttc accgtcaatt ggaagtcttc agagggaggt 900  
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aatgggaagg aggtcctgaa gaccatgtgg ctgctgcggc caagtgttaa tgacattggt 1440
gatgactgga aagctaccag ggtcggcatc aacatcttca ctgcctgcg cacacagaag 1500
gagggagggt ccggaggctc cgccagaaag tgctcgtga ctgggaaatg gaccaacgat 1560
ctgggctcca acatgaccat cggggctgtg aacagcagag gtgaattcac aggcacctac 1620
atcacagccg taacagccac atcaaagag atcaaagagt caccactgca tgggacacaa 1680
aacaccatca acaagaggac ccagcccacc tttggcttca ccgtcaattg gaagttttca 1740
gagtga 1746

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&lt;210&gt; 26

&lt;211&gt; 897

&lt;212&gt; DNA

&lt;213&gt; Gallus gallus

&lt;221&gt; DNA

&lt;223&gt; DNA sequence which codes for dcAvd of SEQ ID 2

&lt;400&gt; 26

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atggtgcacg caacctcccc gctgctgctg ctgctgctgc tcagcctggc tctggtggct 60
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ttttcagagt ccaccactgt cttcacgggc cagtgttca tagacaggaa tgggaaggag 180
gtcctgaaga ccatgtggct gctgcgggtc agtggttaatg acattggtga tgactggaaa 240
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aagtccggcg gatccaccac tgtcttcacg ggccagtgt tcatagacag gaatgggaag 540
gaggtcctga agaccatgtg gctgctgcgg tcaagtgtta atgacattgg tgatgactgg 600
aaagctacca ggtcggcat caacatcttc actgcctgc gcacacagaa ggagggaggc 660

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tccggaggct ccgccagaaa gtgctcgctg actgggaaat ggaccaacga tctgggctcc 720  
 aacatgacca tcggggctgt gaacagcaga ggtgaattca caggcaccta catcacagcc 780  
 gtaacagcca catcaaatga gatcaaagag tcaccactgc atgggacaca aaacaccatc 840  
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<210> 27  
 <211> 31  
 <212> DNA  
 <213> Artificial sequence  
 <223> primer cp34\_C1

<400> 27  
 aatttaagct tatgttacgg ctgtgatgta g 31

<210> 28  
 <211> 290  
 <212> PRT  
 <213> Gallus gallus

<400> 28

Met Asn Lys Pro Ser Lys Phe Ala Leu Pro Leu Ala Phe Ala Ala Val  
 1 5 10 15

Thr Ala Ser Gly Val Ala Ser Ala Gly Thr Gln Pro Thr Phe Gly Phe  
 20 25 30

Thr Val Asn Trp Lys Phe Ser Glu Ser Thr Thr Val Phe Thr Gly Gln  
 35 40 45

Cys Phe Ile Asp Arg Asn Gly Lys Glu Val Leu Lys Thr Met Trp Leu  
 50 55 60

Leu Arg Ser Ser Val Asn Asp Ile Gly Asp Asp Trp Lys Ala Thr Arg  
 65 70 75 80

Val Gly Ile Asn Ile Phe Thr Arg Leu Arg Thr Gln Lys Glu Gly Gly  
 85 90 95

Ser Gly Gly Ser Ala Arg Lys Cys Ser Leu Thr Gly Lys Trp Thr Asn  
 100 105 110

Asp Leu Gly Ser Asn Met Thr Ile Gly Ala Val Asn Ser Arg Gly Glu  
 115 120 125

Phe Thr Gly Thr Tyr Ile Thr Ala Val Thr Ala Thr Ser Asn Glu Ile

12/13

130

135

140

Lys Glu Ser Pro Leu His Gly Thr Gln Asn Thr Ile Asn Lys Ser Gly  
 145 150 155 160

Gly Ser Lys Glu Ser Pro Leu His Gly Thr Gln Asn Thr Ile Asn Lys  
 165 170 175

Arg Thr Gln Pro Thr Phe Gly Phe Thr Val Asn Trp Lys Phe Ser Glu  
 180 185 190

Ser Thr Thr Val Phe Thr Gly Gln Cys Phe Ile Asp Arg Asn Gly Lys  
 195 200 205

Glu Val Leu Lys Thr Met Trp Leu Leu Arg Ser Ser Val Asn Asp Ile  
 210 215 220

Gly Asp Asp Trp Lys Ala Thr Arg Val Gly Ile Asn Ile Phe Thr Arg  
 225 230 235 240

Leu Arg Thr Gln Lys Glu Gly Gly Ser Gly Gly Ser Ala Arg Lys Cys  
 245 250 255

Ser Leu Thr Gly Lys Trp Thr Asn Asp Leu Gly Ser Asn Met Thr Ile  
 260 265 270

Gly Ala Val Asn Ser Arg Gly Glu Phe Thr Gly Thr Tyr Ile Thr Ala  
 275 280 285

Val Thr  
 290

<210> 29  
 <211> 873  
 <212> DNA  
 <213> Gallus gallus

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